## INTERNATIONAL SEARCH REPURT

International App n No PCT/IB 03/02184

## A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04B1/10

According to International Patent Classification (IPC) or to both national classification and IPC

## **B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  $I\,PC\,\,7\,\,-\,\,H04B$ 

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (hame of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

	INTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	US 6 442 375 B1 (PARMENTIER JACK D) 27 August 2002 (2002-08-27) column 5, line 63 -column 6, line 18; figure 2	1-27
X	EP 1 079 533 A (ERICSSON TELEFON AB L M) 28 February 2001 (2001-02-28) abstract; claims 1-5	1-27
A	US 6 144 473 A (JACKSON H SPENCE ET AL) 7 November 2000 (2000-11-07) abstract	1-27
Α	EP 1 122 554 A (SONY CORP) 8 August 2001 (2001-08-08) abstract	1-27
	<b>-/</b>	

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "&" document member of the same patent family
Date of the actual completion of the International search  4 November 2003	Date of mailing of the International search report  0.1 12 2003
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer  MARKUS STÅLÖ/MN

## IN I EDNA I IUNAL SEARUD KEPUK I

International & tion No
PCT/IB 03702184

	Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT					
ategory °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.				
	EP 1 253 720 A (NOKIA CORP) 30 October 2002 (2002-10-30) abstract	1-27				
\	EP 1 091 497 A (ERICSSON TELEFON AB L M) 11 April 2001 (2001-04-11) abstract	. 1-27				
۹	US 5 691 978 A (KENWORTHY GARY ROBERT) 25 November 1997 (1997-11-25) abstract	1-27				
4	US 6 107 960 A (KRASNER NORMAN F) 22 August 2000 (2000-08-22) abstract	1-27				
,						
	·					
.						
	•					
		·				
	•					
Ì						

		<b></b> .	International Application No
Informatio	ent family members		PCT/IB 05/02/184

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6442375 E	27-08-2002	AU 5163100 A CN 1382324 T EP 1201038 A1 JP 2003505916 T WO 0106669 A1	05-02-2001 27-11-2002 02-05-2002 12-02-2003 25-01-2001
EP 1079533 A	28-02-2001	EP 1079533 A1 AU 6998900 A CN 1382327 T WO 0115330 A1 JP 2003507955 T	28-02-2001 19-03-2001 27-11-2002 01-03-2001 25-02-2003
US 6144473 A	07-11-2000	NONE	
EP 1122554 A	08-08-2001	JP 2001215267 A AU 1666801 A CA 2333344 A1 CN 1319961 A EP 1122554 A1 US 2001020912 A1	10-08-2001 02-08-2001 31-07-2001 31-10-2001 08-08-2001 13-09-2001
EP 1253720 A	30-10-2002	EP 1253720 A1 US 2002158793 A1	30-10-2002 31-10-2002
EP 1091497 A	11-04-2001	EP 1091497 A1 AU 6570200 A CN 1371550 T WO 0115329 A1 JP 2003507954 T US 6510308 B1	11-04-2001 19-03-2001 25-09-2002 01-03-2001 25-02-2003 21-01-2003
US 5691978 A	25-11-1997	NONE	
US 6107960 A	22-08-2000	AU 2327199 A EP 1051638 A1 JP 2002509256 T WO 9936795 A1	02-08-1999 15-11-2000 26-03-2002 22-07-1999